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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/955,098	09/19/2001	Masahiro Kawasaki	P21042.P05	9626

7055 7590 11/06/2002

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EXAMINER

SMITH, ARTHUR A

ART UNIT	PAPER NUMBER
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2851

DATE MAILED: 11/06/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/955,098

Applicant(s)

KAWASAKI ET AL.

Examiner

Arthur A Smith

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 September 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5-7 and 10 is/are rejected.
- 7) ☒ Claim(s) 3,4,8, and 9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 September 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

Claims 5 and 10 are objected to because of the following informalities: After "emitter" insert --to--. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Yamada (USPN 4710012).

Yamada discloses a zoom flash comprising a light emitter, ref. 200, and a zoom driver which moves said light emitter along an axis to vary an illumination angle, col. 3 lines 34-40. Yamada also discloses a detecting device which detects a zoom position of said light emitter, col. 3 lines 40-43, and a calculation device which calculates a pre-flash emission level according to the detected zoom position so that illuminance on an object at a predetermined distance is substantially constant regardless of a variation of said illumination angle, col. 3 lines 49-56. Yamada further discloses a control device which activates said light emitter to emit a preliminary flash emission, before a main flash emission, by supplying a voltage corresponding to said pre-flash emission level for said light emitter, col. 3 line 62 - col. 4 line 1 (example of voltage used in the normal zoom, between tele and wide).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamada (USPN 4710012).

Yamada discloses all the limitation of the parent claim as described above. Yamada does not specifically disclose wherein said calculation device calculates said pre-flash emission level so that an effective guide number is substantially constant regardless of said variation of said illumination angle. However, looking at col. 3 lines 57-61 it is inherent that this is result caused. By varying the amount of voltage applied during the preliminary flash in accordance with the focal length of the camera the guide number will remain constant.

Claims 5 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamada (USPN 4710012) in view of Fukui (USPN 6167202).

Yamada discloses all the limitation of the parent claim as described above. Fukui discloses where a zoom flash has a device that controls a light emitter to perform a pre-flash emission in a flat emission mode, col. 11 lines 12-15. It would have been obvious to one of ordinary skill in the art at the time the invention was made to realize that a flat emission could be used in the preliminary flash emission as this would

produce a more uniform reflection of light and thereby lead to a more accurate control of the main flash.

Allowable Subject Matter

Claims 3, 4, 8 and 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The Examiner is unable to find any pertinent prior art of record that teaches a zoom flash according to claims 1 and 5, further comprising: a memory in which a maximum guide number that varies in accordance with said zoom position, a reference guide number predetermined as a constant, and a reference flash emission level predetermined as a correction constant are stored; wherein said maximum guide number, said reference guide number, and said reference flash emission level are stored in said memory, and wherein said calculation device calculates a pre-flash emission level using the equation: $V_{fp} = V_a \times (G_{nos}/G_{no(zoom)})^2$ wherein "Vfp" represents said pre-flash emission level; "Va" represents said reference flash emission level; "Gnos" represents said reference guide number; and "Gno(zoom)" represents said maximum guide number corresponding to the detected zoom position.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kawabe et al. (USPN 5956531) discloses zoom flash that can be

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electrically connected to a camera and where the zoom driver moves the light emitter in accordance with a focal length of the lens of the camera, see abstract.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arthur A Smith whose telephone number is (703) 605 1228. The examiner can normally be reached on Monday - Thursday from 8:00 AM to 5:30 PM. The examiner can also be reached on alternate Fridays during the same hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Russ Adams can be reached on (703) 308 2847. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872 9318 for regular communications and (703) 872 9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308 0956.



RUSSELL ADAMS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800

AAS
November 1, 2002